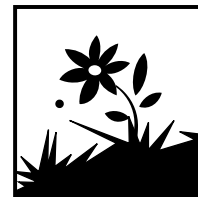
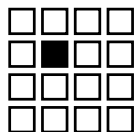


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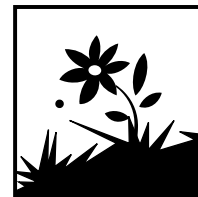


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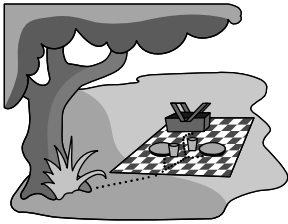


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9.1 Definition of Resource



Turf provides a forgiving and resilient surface for many recreational activities and is the traditional "green carpet" visitor's associate with parks. Most of SPR's 2310 acres of developed parkland is turf. Because turf varies substantially in use, so do turf management practices. Maintenance and management of park turf is a major SPR program. Appropriate management ensures both high quality, high use turf where it is needed such as on athletic fields and golf courses and that the designed use of a site can be met.

The park system offers visitors a wide variety of turf, including lawns (both formal and informal), athletic fields, golf courses, meadows and other kinds of turf. Of the 1400 acres of turf in the system, 200 acres are athletic fields, 460 acres are golf courses, and the remaining 740 acres are lawns. Each of type of turf requires a separate best management practice. The intensity of management ranges from very highly maintained golf course turf to meadow areas that may get mown only once a year as a fire prevention measure.

9.2 Goal Statement

The primary goal of this BMP is to draw appropriate distinctions between the different types of turf that are used within the park system and to define the maintenance and management requirements of each. This BMP is the result of consultation between a large number of people from within and outside of SPR. In particular, information provided by Dr. Tom Cook, Oregon State University, was very useful in the development of this BMP.

9.3 Definitions

Aerify: to either punch holes or slices into the ground at varying depths for the purpose of relieving compaction and improving air and water movement through the soil profile.

Fertilizer: a synthetic or organic based plant nutrient product that is primarily a combination of nitrogen (N), phosphorous (P) and potassium (K). Fertilizers always come in a numbered formulation based upon the relative amount of these three primary ingredients, ex. such as 5 – 1 – 4.

Mulch Blades/Mulch Mower: a special type of lawn mower blade that is designed to cut grass blades and keep them in suspension so that they can be re-cut multiple times before falling back into the turf surface as a finely cut mulch. A mulch mower is designed to use mulch blades exclusively and produces very fine clippings that are distributed evenly during mowing.

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Over Seeding: the addition of a specified turf seed to either repair worn areas or generally increase the number of grass plants within a given turf area.

pH: the measure of the amount of acidity or alkalinity in the soil. Most turf types will grow well within a pH range of 5.5 to 7.

Thatch: is a layer of intermingled dead roots and partially decomposed grass stems that has accumulated below the grass blades and above the soil surface. Thatch layers thicker than ¼ to ½ inch can inhibit water flow and nutrient movement and can harbor plant pathogens and therefore should be removed.

Top Dressing: the application of sand to the turf/soil surface to increase air/water movement, to keep the turf surface dry and firm and/or to incrementally level the turf area.

Turf: technical term applied to any lawn or grasses grown in a park or park facility. Turf areas vary widely in type of use from highly maintained athletic fields and golf courses to lightly maintained park meadows.

9.4 Policies and Guidelines

SPR “Water Shortage Contingency Plan” This plan provides detailed guidance for reducing water use, including irrigation, across SPR in the event of a regional water shortage. (Appendix #, URL)

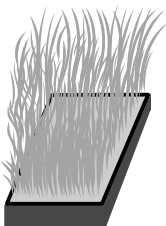
SPR Policy 7.1.1, “Use and Scheduling of Outdoor Athletic Facilities”: This policy establishes guidelines for the use and scheduling of outdoor athletic fields that are scheduled by the SPR personnel, excluding West Seattle Stadium, which is covered under separate policies.

SPR Policy 7.3.2, “Condition of Athletic Field Closure”: This policy provides Grounds Maintenance and Recreation employees guidelines for closure of athletic fields that are subject to varying degrees of playing pressure causing damage to the turf.

9.5 Planning and Design

The following are design considerations that improve the quality of turf plantings.

9.5.1 Turf Area Construction



The following BMPs apply to the construction of new turf areas. Generally speaking, these BMPs apply equally to seeding, sodding, or hydroseeding.

- Turf areas should be constructed with a minimum slope of 2% to promote surface drainage and a maximum slope of 25% to allow riding mowers to safely access turf areas.

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- If needed, the soil should be amended with sand to provide better drainage and a drier surface area. Dry surface areas allow easier and earlier (in the mowing season) maintenance as well as provide superior play quality. Please note that adding sand to heavy clay soils may not promote better drainage and could compound problems. Special consideration and research should be taken when attempting to amend these types of soils.
- Finish rake and roll the area to produce a uniform soil profile and firm surface.
- Because organic materials added to natural soil will decompose within two years, using them as a soil amendment at the time of initial planting needs to be supported by some special need related to nutrient deficiencies. If organic matter (compost) is incorporated into the native soil it must be well mixed to avoid future problems.
- The pH of the soil should be tested to determine whether lime should be added. If lime is needed, apply it before the area is tilled and then till it in thoroughly. Lime has to be incorporated into and be able to react with the soil to be most effective.
- Seed the area with the selected seed mix at the specified pounds per 1,000 square feet and lightly rake it in.
- Apply the selected fertilizer just before or after seeding (a high Nitrogen quantity fertilizer works best, 10-2-6, 21-7-14, or 24-4-12 etc.). If laying sod, apply the fertilizer to the soil surface before the sod is laid, assuming the sod doesn't come pre-fertilized (check to make sure). Reapply the same fertilizer in 4 – 6 weeks.
- The application of fine mulch over the seedbed is okay but not always needed. It should be looked upon as additional insurance for successful turf establishment. However, if the seedbed is well prepared and irrigation is monitored closely, the added cost of the mulch can be avoided. If used, it should not be more than ¼ of an inch in depth. For late fall plantings a dark colored mulch can enhance germination by holding more of the sun's heat. Mulch is not needed for sodding or for hydro seeding in most situations.
- Trees, signposts, benches, and other park amenities should be carefully placed in turf areas to reduce the need for hand trimming. If possible, these amenities should have the turf immediately surrounding them removed (such as for a tree ring) for the same purpose.

9.5.2 Grass Species Selection

Selection of grass species is based on site conditions, expected usage, and maintenance standards. Sites with optimum growing conditions and high maintenance standards are seeded with blends of several species of perennial rye grass. Sites with poor drainage, partial shade, and limited fertilizer applications require blends of perennial rye grass, red fescues, and Chewings fescues.

The following site characteristics, usage, and maintenance practices guide seed selection:

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- ❖ Ideal sites (full sun, good drainage, and reasonable fertility) are suited for perennial ryegrass blends.
- ❖ Lawns that are in partial shade or poorly drained should be seeded with mixes of perennial rye and fescues.
- ❖ Generally, Kentucky Bluegrass should be avoided. Although its rhizomatic growth can add strength to the turf root zone, it does not compete well with rye grass and can significantly add to thatch if not actively controlled.

9.5.3 Use of 'Ecoturf'

'Ecoturf' is a mixture of various turf-type lawn grasses and water wise broadleaf perennials. Different mixes of Ecoturf are appropriate to a variety of sites or maintenance regimes. The application of Ecoturf results in a softer and less uniform meadow-like lawn. It is formulated to produce a green appearance year-round. It requires very little summer watering and essentially no fertilization. It can be mulch-mown at a height of 2" to 3" and is usually cut less frequently than other park turf. Because it uses a lower seeding rate of 2 pounds per 1,000 square feet, it does take up to two full growing seasons to completely grow in. During the growing in period it does require irrigation similar to a regular turf lawn.

Where should Ecoturf be used? It should be considered for areas that are between a regular park lawn and a meadow and in sites that do not have high use. You should expect people to walk on it and use it for passive recreation. You would not want to use it for high visibility areas and certainly not on sports fields or on other turf playing surfaces. Before deciding whether to use Ecoturf in one of your parks, it would be best to first consult with the Park Horticulturist and your assigned Landscape Architect.

9.6 General Turf Maintenance Practices

The following guidelines apply to all SPR turf plantings.

9.6.1 Mowing

Frequency: The importance of regular mowing for promoting healthy turf cannot be over emphasized. Growth should be monitored and frequency increased to avoid removing more than 1/3 of the leaf blade in one individual cutting.

Cutting Height: For most perennial rye turf in Parks, a mowing height of 1.5 to 2 inches promotes healthier turf than a lower cutting height because it provides more opportunity for photosynthesis, deeper rooting, it shades the weed seed germination zone and encourages a healthier stand of turf. Lower cutting height of 1-1.5 inches is appropriate for older bentgrass lawns.

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Mulch Mowing: Grass clippings should rarely be removed from mowed turf areas. The plant nutrients returned to the soil play an important role in developing a healthy, productive environment for a healthy stand of turf. The use of mulching blades or mulching mowers is encouraged.

- Mowing patterns should be routinely alternated to avoid ruts and compaction from the wheels.
- Avoid driving on frozen turf. This is especially important on closely mowed turf. Doing so can damage the crowns of individual plants and kill them.
- Avoid driving on wet ground where ruts will remain. Walk the site during wet conditions to visually inspect and avoid wet areas.
- Mowing equipment must be maintained regularly, especially sharpening and adjusting of cutting edges.
- Mowing activities and the follow-up cleaning of clippings and clumps of grass off sidewalks should be well coordinated in high visibility park sites.

9.6.2 Trimming

Controlling grass along fence lines, around trees, and other landscape features helps preserve the asset by allowing large riding lawn mowers to steer clear of objects. This routine maintenance activity is especially important around trees where mower damage can easily lead to tree loss. See the Tree Maintenance BMP for further information concerning trimming near the base of trees. A mulch bed is more desirable around the base of trees than trimming right to the base. An additional advantage of grass trimming abatement is that it makes parks appear clean and well kept. This image, in turn, has a positive impact on how the public uses our facilities. Well-maintained parks experience less vandalism and misuse. Grass trimming is accomplished in the following ways:

- **Concrete Mow Strips:** As resources are available, it is sometimes possible to provide a “mow strip” of concrete or a similar low maintenance product around some landscape features to eliminate the need for grass trimming. This control option is costly and doesn’t work in all situations.
- **Mechanical:** Trimming can be performed with hand tools and/or walk behind mowers and line trimmers. If an area can be trim-mowed by a riding mower *without* damaging trees or other park assets, then that will be the equipment of choice.
- **Herbicide:** This work is also often performed through the annual (or less frequent) application of the herbicide Roundup Pro®. This product is sometimes used in conjunction with Surflan® to provide ongoing pre-emergent control of weed and grass seed not yet germinated in tree rings and similar areas. The City’s pesticide use

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reduction program and the SPR IPM BMP should be considered before using an herbicide as a grass-trimming tool (see Chapter XX, IPM).

- **Growth Regulators:** Growth regulators like Embark™ can be effective in controlling the growth of grass, particularly on steep slopes and other areas that are difficult to maintain. Continued use of Embark can result in thin grass. Before using a growth regulator, consideration must be given to the fact that they are classified as pesticides and their use also falls into the pesticide reduction program.
- Trimming should be coordinated with other mowing activities on the site.

9.6.3 Edging

- Turf edging is done to give a finished look to lawn areas that border paved surfaces or planting areas. Edging is performed 2 to 4 times per year, depending on the maintenance standard for the site.
- At high maintenance locations, edging may need to be performed at a higher level of frequency.

9.6.4 Irrigation

- Refer to the Chapter XX, Irrigation for these practices.

9.7 Cultural Care

9.7.1 Fertilization

- High quality turf such as athletic fields, bathing beaches, and formal lawn areas should have the soil tested as often as every 2 years. Special attention should be paid to pH as it directly drives nutrient availability. Seattle area soils tend to be acidic and may require lime to increase pH to acceptable levels. Most turf will grow well in a range of 5.5 to 7.
- All fertilizers have a “Guaranteed Analysis” on the bag. This is the three number NPK ratio and should aid in determining the amount of fertilizer applied.
- Turf fertilizer should have an approximate 5-1-4 NPK ratio unless otherwise indicated by soil tests.
- Each application should apply approximately 1 lb. of N per 1000 square feet. This may vary depending on fertilizer formulation and release characteristics.
- A fertilizer’s Nitrogen should be a blend of both water soluble (quick release) and water insoluble (slow release) formulations.

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- Avoid applications during heavy rainfall to avoid runoff.
- Be sure irrigation is operational before growing season applications of fertilizer.
- Avoid applications in very hot weather without immediate and adequate irrigation (refer to fertilizer label).
- Have sprinkler heads marked to avoid damaging them during truck applications (very important!).
- A soil test may show a need for certain micronutrients, but this is seldom the case. Any application of micronutrients should be done only as needed, on a case-by-case basis.
- Site-specific fertilizer restrictions must be observed. Site- specific cautions include:
 - ❖ No fertilizer use in the immediate vicinity of streams and wetlands
 - ❖ No fertilizer use within 50 feet of shorelines or streams
 - ❖ No phosphorus use in Green Lake Park drainage area

9.7.2 Aeration

- Best periods: March/April, late June, and late August. Every effort should be made to aerify as often as possible, working around athletic field use schedules.
- When using drum-type aerifiers, make at least 2 passes at right angles. This may vary depending on types of equipment used.
- Insure sprinkler heads are marked to avoid equipment damaging them.
- Areas with drainage problems should be deep-tine aerified 1-2 times per year using tines that are as long as possible (10” to 14”).

9.7.3 Thatch Removal

- Thatch should be removed at least once per year in conjunction with aerifying and over seeding. The material will consist of organic matter ground into the soil by play. If left it may create an anaerobic layer that will reduce microbial action and organic mater break down. The results will be an organic bog that is impervious to water percolation.
- **Leaf Removal:** Special care should be taken **not** to mulch leaves on the playing surface of athletic fields. This is another source of organic mater that will increase

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the risk of the organic bog discussed in the previous bullet. In this case, the leaves should be blown or vacuumed off the field.

- Mark sprinkler heads before thatching to avoid thatching equipment damage.
- Thatch removal is best timed when the soil is firm and relatively dry.

9.7.4 Top Dressing

The goal of top dressing turf is to achieve a firm and level surface and improves immediate surface drainage. Top dressing does not improve nutrient quality of soils.

- Top dress with golf course quality, screened topdressing sand. **Do not** add compost or other organic materials to the topdressing sand.
- Top dressing is most effective when done lightly and frequently.
- Each top dressing application should be about $\frac{1}{8}$ to $\frac{1}{4}$ inch.
- Monthly applications are desirable in heavy wear areas during peak seasons.

9.7.5 Over Seeding

- Over seed entire area at least once per year. Perform this more frequently in high wear areas.
- The best germination rates occur before October 15 (the average first frost date) or after April 15 (the average last frost date).
- Over seed rate is approximately 5-lbs/1000 ft². Use a higher rate in high wear areas.
- Every effort should be made to rotate soccer/football goals during the season to avoid wear areas.
- The following site characteristics, usage, and maintenance practices guide seed selection:
 - Ideal sites (full sun, good drainage, and reasonable fertility) are suited for perennial ryegrass blends.
 - Lawns that are in partial shade or poorly drained should be seeded with mixes of perennial rye and fescues.
 - Generally, Kentucky Bluegrass should be avoided. Although its rhizomatic growth can add strength to the turf root zone, it does not compete well with rye grass and can significantly add to thatch if not actively controlled.

9.8 Site Standards

Site standards for turf varies by landscape classification such as that in front of the Seattle Art Museum, Volunteer Park Conservatory and other related facilities. These categories include prominent, general, and non-irrigated lawn areas, steep slopes, meadows, soil- or sand-based athletic fields, and bathing beaches. The following chart displays the various standards for each classification.

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Turf BMPs by Classification:

The management practices for turf vary according to the type or use of the turf area.

	Fertilization	Aerification	Overseeding
Sand Based Athletic Fields: These are ‘prescription’ fields constructed on a thick sand base designed for use into the wet season.	Apply 6 lbs. of N/1,000 sf per year Preferred formulation = 5-1-4 80% should be slow release	4 times per year (or more) with .75” x 3” hollow tines Vertidrain 1 – 2 times/year on wet/problem areas	Rye grass only, 5 lb/1,000 sf, slicer seed broadcast 2 times per year – the end of the season and again in the spring beginning of the season
Soil Based Athletic Fields: These are fields constructed on native soils or native soils that have received minimal amendment.	Apply 4 lbs. of N/1,000 sf per year Preferred formulation = 5-1-4 Mix slow release and soluble (preference is slow release)	4 times per year with .75” x 3” hollow tines Vertidrain 1 – 2 times/year on wet/problem areas	Rye grass only, 5 lb/1,000 sf, slicer seed broadcast 2 times per year – the end of the season and again in the spring beginning of the season
Prominent Irrigated Turf Areas: These are high visibility or special high use turf areas such as the lawns in front of the Conservatory and Seattle Asian Art Museum.	Apply 4 lbs. of N/1,000 sf per year Preferred formulation = 5-1-4 Mix slow release and soluble (preference is slow release)	2 times per year with .75” x 3” hollow tines Vertidrain as needed	Rye grass only, 5 lb/1,000 sf, slicer seed broadcast 1 time per year, as needed – in the spring
Summer Bathing Beach Turf Areas: These are the lawn areas associated with our designated summer bathing beach program.	Apply 2 to 4 lbs of N/1,000 sf per year Slow release formulations only Pay very close attention to avoid the potential for fertilizer leaching and runoff	2 to 3 times per year with .75” x 3” hollow tines	Rye grass only, 5 lb/1,000 sf, slicer seed broadcast As needed, paying attention to wear areas in the spring
General Irrigated Turf Areas: These are lawn areas in various types of parks where regular irrigation is available.	Apply once per year XXXX using a 5-1-4 formulation	Only if needed using .75” x 3” hollow tines	Spot overseeding in wear areas only Rye grass only, 5 lb/1,000 sf, slicer seed broadcast
Non-Irrigated Turf Areas: These are lawn areas in various types of parks where irrigation is not available.	Apply once per year XXXX using a 5-1-4 formulation	These areas are not aerified	Overseed only in association with turf or restoration
Steep Turf Slopes: These are grassy hillsides that are typically too steep to mow with regular mowing equipment. They may or may not be irrigated.	These areas are not fertilized	These areas are not aerified	Overseed only in association with turf or restoration

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Meadows: Meadows are grassy areas that provide wildlife habitat and are not mown, or may be mown only once or twice per year for fire prevention reasons.	These areas are not fertilized	These areas are not aerified	The areas are not overseeded
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9.9 Integrated Pest Management (IPM)

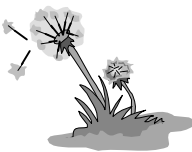
9.9.1 Pest Tolerance Thresholds

- Weed, insect and disease pests are typically tolerated in general park lawn areas.
- Turf pests in highly maintained turf such as athletic fields, bathing beaches and other high-visibility/high-use areas are generally controlled through good turf cultural practices.
- In rare situations where asset health or use function is threatened by insects, weed growth or disease, an Integrated Pest Management Plan will be developed for the individual site. This plan shall strictly follow all Pesticide Reduction goals and incorporate use of a combination of any or all of possible cultural, mechanical and chemical strategies. If chemical strategies are used, the IPM plan will dictate the conditions and types of products to be used.

9.9.2 Pest Management Strategies

Broadleaf Weeds

As discussed, weeds in turf are generally tolerated with the exception of those in a few high-visibility park turf areas. When control is necessary, the primary method is through the following cultural practices:



- Careful monitoring of watering practices
- Fertilization
- Aeration
- Top-dressing

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- Over-seeding.

By performing this preventive maintenance, park turf is healthier and better able to compete with various broadleaf weeds.

Chemical weed control will be used only as a last resort for controlling particularly difficult weeds in high-visibility turf areas.

- In these rare situations, the least toxic, least residual pesticide will be used for spot treatments.
- General broadcast treatments will be avoided.
- The timing of such applications will be made to avoid contact with the public to the extent possible.

Wood Brush Control

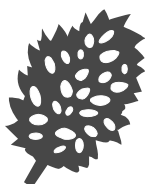
Woody brush control in meadow areas may require the use of herbicides if alternative control measures will not provide control.



Insects

The only real insect pest of significance for turf in Seattle is the European crane fly. While it can be damaging to turf areas, the crane fly is usually not treated by prophylactic control in Seattle parks.

- Chemical control is used only in the rarest of circumstances on turf of very high visibility and value such as selected high-visibility/high-use park turf areas.
- Any chemical applications will be spot treatments directed specifically at the turf areas containing the pest.



Disease

General Park Turf. Disease in general park turf is generally tolerated and is not actively controlled.

- In high-use/high-visibility park turf areas, disease will be controlled to a considerable degree by sound cultural practices.
- Pesticides will only be used to control disease pests in park turf areas when it is the only viable solution to protect the asset.

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Grass Trimming Abatement (see also section 8.5 Trimming)

Controlling unwanted grass growing along fence lines and around trees and bollards can be a time consuming task. Grass trimming is very labor intensive, costly and produces noise and air pollution when mechanical tools like push mowers or string trimmers are used. There are several strategies staff can do to reduce the need for excessive grass trimming:



- Design or redesign the site to cluster trees, posts and other objects into landscape bed areas to eliminate the number of individual objects that might otherwise have to be trimmed around.
- Install mow-strips of concrete or other materials under fence lines and along rows of bollards etc.
- As a maintenance practice, use mulch as a grass and weed suppressant in tree wells and in landscape beds.
- Unwanted grass can also be controlled with herbicides

9.10 Training



- Turf Management Overview
- The SPR mower operators will have specific training regarding mowing operations.

9.11 Appendices Lists for Turf Management

HARD COPY REFERENCES

1. “Guidelines for Landscape Work affecting Utilities”. This guideline explains the step-by-step procedures for organizing a construction project or maintenance regime to avoid potential damage to utilities.

ONLINE REFERENCES

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1. **SPR Standards and Specifications:** All mandated SPR construction standards that apply to landscape projects.
<http://www.cityofseattle.net/parks/projects/standards/specs.asp>)

Appendix 1

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Guidelines for Landscape Work
Affecting Utilities

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Guidelines for Landscape Work affecting Utilities

Every time you are going to aerify turf, dig plant or remove trees and shrubs, add mulch, add soil, remove soil or sod, consider the impacts to utilities, both underground and aboveground. These utilities need to be located prior to beginning work.

Utilities may be located in out-of-the-way places or underground. Locations and especially the exact depth underground may not match plans or blueprints. Failure to accurately locate these utilities can delay your project, can cause significant damage to park landscapes or structures and can also result in serious injury or even death. Follow these guidelines, as applicable to your project or maintenance work, to make your work successful.

Remember that it is your project, job or maintenance task until completion! Be sure to follow through with all tasks and assist Shops whenever possible.

PLAN AHEAD.

- Identify a **Project Lead person** for this project or work.
- **DO NOT assume that there are no utilities in your site.** Look at an irrigation plan or other site blueprints or plans to determine possible utilities. Locate the exact areas where you are doing this work.
- If you have made a reasonable attempt to locate something on the plan and you just can't find it let the Plumbing Shop know.
- **Consider any reason you may need to adjust your schedule of work or move the work location.** For example, if the place you want to plant a tree is directly over an irrigation line, it is easier to adjust your location than to accidentally damage irrigation. Consider seasonal scheduling of your work or project so as not to impact special events or recreation programs like baseball. A work order needs to be requested for all in-house utility locates, moving plants, trenching or other additional work by the Shops or Horticulture crews.

AT LEAST TWO WEEKS PRIOR TO THE WORK STARTING DO THE FOLLOWING TASKS AT YOUR WORK SITE:

1. **Make a drawing** of the work that you are planning; indicate NORTH with an arrow.
2. **Call the Work Order Jobline and request an in-house locate** for the Electric Shop, the Plumbing Shop and the Sewer Crew. Fax a drawing of the work site with irrigation details to the Jobline: #684-7271
3. **You will need to call DIAL TO DIG—1-800-424-5555.** (The Parks contract ID# is 34267.) If you are not sure call one of the Shops. (Many Parks were streets at one time and many Parks have utilities running thru them.)
4. **Mark landscapes** with special **inverted solvent-based marking paint** from the Warehouse.
5. **Mark every location** at the site where the work is to be done.

AT LEAST TWO WEEKS PRIOR TO THE WORK STARTING DO THE FOLLOWING TASKS, continued:

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6. **Mark** all irrigation heads, hose bibs, quick couplers, valves and valve boxes that you see on the plan that are within 15 feet of the work that you are planning.
7. **Mark the sprinkler heads** with a circle around them keeping the paint 4” away from the sprinkler.
8. **Uncover and make obvious** any valve boxes that you locate.
9. **Do not dig within two feet of any marked utilities**—if you are not sure what the marks are indicating, contact the Shops.
10. **If you determine** that there are irrigation heads, valves and/or valve boxes that need to be raised because of your work call in a separate work order and contact the Plumbing Shop to make arrangements to assist with digging, barricades or otherwise to complete your job.

1 TO 2 DAYS PRIOR TO THE LANDSCAPE WORK BEGINS, DO THE FOLLOWING TASKS:

- **Hand dig excavation areas** and assist Shops whenever possible.
- **Re-mark landscapes** with special **inverted solvent-based marking paint** from the Warehouse; DO NOT use regular spray paint as it clogs sprinkler heads and other equipment.
- **Re-mark the work area** at the site where the work is to be done.
- **Re-mark all irrigation** heads, hose bibs, quick couplers, valves and valve boxes that you see on the plan that are within 15 feet of the work that you are planning.
- **Re-mark the sprinkler heads with a circle** around them keeping the paint 4” away from the sprinkler head.
- **Uncover and make obvious** any valve boxes that you locate.

Integrated Turf Programs by Classification

	Fertilization	Aerification	Overseeding	Top-dressing	Thatch Removal	Comments
Sand Based Athletic Fields: These are 'prescription' fields with a thick sand base designed for use into	Apply 6 lbs. of Preferred formulation 80% should be slow	4 times per year (or 3" hollow tines Vertidrain 1 – 2 problem areas	Rye grass only, 5 lbs. seed or broadcast 2 times per year – once season and again in the of the season	4 – 6 times per year quality sand	Once per year in the	
Soil Based Athletic Fields: These are fields constructed on ve soils that have received minimal	Apply 4 lbs. of Preferred formulation Mix slow release and is slow release)	4 times per year with nes Vertidrain 1 – 2 problem areas	Rye grass only, 5 lbs. seed or broadcast 2 times per year – once ason and again in the of the season	2 - 4 times per year quality sand Maintain a 1" – 1-1/2" f native soil	Once per year as g	
Prominent Irrigated Turf These are high visibility or special such as the lawns in front of the Seattle Asian Art Museum.	Apply 4 lbs. of Preferred formulation Mix slow release and is slow release)	2 times per year with nes Vertidrain as needed	Rye grass only, 5 lbs. seed or broadcast 1 time per year, as ing	1 - 2 times per year, as ource quality sand	Once per year as g	
Summer Bathing Beach Turf These are the lawn areas designated summer bathing beach	Apply 2 to 4 lbs of Slow release Play very close he potential for fertilizer f	2 to 3 times per year ow tines	Rye grass only, 5 lbs. seed or broadcast As needed, paying close reas – in the spring	1 - 2 times per year, as ource quality sand	Once per year in the	
General Irrigated Turf Areas: These are lawn areas in various re regular irrigation is available.	Apply once per year -4 formulation	Only if needed using nes	Spot overseeding in ly Rye grass only, 5 lbs. seed or broadcast	Top-dress only when f repair/restoration	Only if needed	
Non-Irrigated Turf Areas: These are lawn areas in various re irrigation is not available.	Apply once per 5-1-4 formulation	These areas are not	Overseed only in rf repair or restoration	Top-dress only when f repair/restoration	These areas are not	
Steep Turf Slopes: These are grassy hillsides that are to mow with regular mowing may or may not be irrigated.	These areas are not	These areas are not	Overseed only in rf repair or restoration	Top-dress only when f repair/restoration	These areas are not	Under certain opes may be candidates a growth regulator (see
Meadows: Meadows are grassy areas that bitat and are not mown, or may be twice per year for fire prevention	These areas are not	These areas are not	The areas are not	These areas are not top-	These areas are not	It is possible that oval will be required in eep them free of woody nd weeds Meadow areas may wed once or twice per potential